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CORRELATION OF COLORADO MODEL CONTENT STANDARDS TO *MOVING WITH MATH® EXTENSIONS GRADE 4*

		Student Book	Skill Builders
1.	Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.		
1.1	Demonstrate meanings for whole numbers, and commonly used fractions, and decimals (for example, $\frac{1}{3}$, $\frac{3}{4}$, 0.5) and represent equivalent forms of the same number through the use of physical models, drawings, calculators, and computers.	1-3, 45-47	1-1, 30-1, 31-1, 32-1
1.1a	Using concrete materials and visual representations, compare, order, and represent decimal fractions with like and unlike denominators, such as: halves, fourths, and tenths (for example, may use base-ten blocks, pictures, fraction strips, fraction circles).	45-48	30-1, 31-1, 32-1
1.1b	Recognize different combinations of currency and coins for a set amount up to \$10.00.	24	47-2
1.2	Read and write whole numbers and know place-value concepts and numeration through their relationships to counting, ordering, and grouping.	1-7	1-1, 2-1, 3-1, 4-1, 5-1, 6-1
1.2a	Read, write, and order numerals and number words from 0-99,999.	5, 7	2-1, 4-1, 5-1
1.2b	Identify place value through 99,999.	1, 4	1-1, 6-1
1.2c	Generate equivalent representations for whole numbers up to 9,999 (for example; $87459 = 7,000 + 400 + 50 + 9$ or $30 + 6$ or 2 tens + 16 ones).	1, 2	1-1
1.3	Use numbers to count, to measure, to label, and to indicate location.	57-64	43-1, 44-1, 45-1, 46-1, 46-2, 50-5
1.3a	Using a number line, a hundreds chart or other number chart, locate, label, or count from any number by 2's, 3's, 5's, 10's, or 100's.	8	3-1

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1.3b	Locate and label halves, multiples of fourths, and thirds, between whole numbers on a number line.		
1.4	Develop, test, and explain conjectures about properties of whole numbers, and commonly-used fractions and decimals (for example, $\frac{1}{3}$, $\frac{3}{4}$, 0.5, 0.75).	11, 12, 48	9-1, 9-2, 20-2
1.4a	Show division of whole numbers is not commutative (1-digit into 2-digits).		
1.4b	Use number properties with any of the four basic operations (commutative, associative, properties of zero and one).	11, 12	9-1, 9-2, 20-2
1.5	Use number sense to estimate and justify the reasonableness of solutions to problems involving whole numbers, and commonly-used fractions and decimals (for example, $\frac{1}{3}$, $\frac{3}{4}$, 0.5, 0.75).	22, 34	7-1, 8-1
1.5a	Use estimation strategies to determine the reasonableness of solutions involving the four basic operations.	22, 34	
1.5b	Use estimation to round to the nearest dollar in context and determine reasonableness.		
2.	Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.		
2.1	Reproduce, extend, create, and describe patterns and sequences using a variety of materials (for example, beans, toothpicks, pattern blocks, calculators, unifix cubes, colored tiles).	8	3-1
2.1a	Reproduce, extend, and create patterns, using pictures, geometric shapes or numbers.		3-1
2.1b	Determine the missing element in a pattern using pictures, geometric shapes or numbers.		3-1
2.2	Describe patterns and other relationships using tables, graphs, and open sentences.	8 (T.G.)	3-1
2.2a	Display numbers in tables or graphs, to show patterns.	8, 10, 37	8-1, 25-1
2.2b	Describe patterns given in tables and graphs.	8	3-1
2.3	Recognize when a pattern exists and use that information to solve a problem.	48	

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2.3a	Identify a rule using addition, subtraction, or multiplication and solve a problem using the rule (for example, function boxes, input/output boxes, T-Charts).		
2.4	Observe and explain how a change in one quantity can produce a change in another (for example, the relationship between the number of bicycles and the number of wheels).	25	
2.4a	Using whole numbers, determine how the change in one quantity affects the change in the other by addition, subtraction or multiplication (for example, Maria is making ladybugs. For 1 ladybug she needs 6 black dots, for 2 ladybugs she needs 12 dots. How many black dots will she need for 4 ladybugs?)	25	
3.	Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.		
3.1	Construct, read, and interpret displays of data including tables, charts, pictographs, and bar graphs.	63, 64	50-1, 50-2, 50-3
3.1a	Organize, construct, read and interpret a table, line plot, bar graph and/or pictograph from given data.	63, 64	50-1, 50-2, 50-3
3.2	Interpret data using the concepts of largest, smallest, most often and middle.	64 (T.G.)	50-1, 50-2, 50-3
3.2a	Draw conclusions from a given data display.	63, 64	50-1, 50-2, 50-3
3.2b	Find the median, mode, the smallest and the largest element in a set of data.	64 (T.G.)	50-1, 50-6
3.3	Generate, analyze, and make predictions based on data obtained from surveys and chance devices.		50-4, 50-7
3.3a	Predict the outcomes of flipping a coin, spinning a spinner with four congruent sectors and/or a number cube.		50-7
3.3b	Determine and support which outcomes are most likely, least likely or equally likely when using a chance device.		50-4, 50-7
3.4	Solve problems using various strategies for making combinations (for example, determining the number of different outfits that can be made using two blouses and three skirts).		
3.4a	Given pictures, describe all possible combinations of matching the elements of two sets.		

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4.	Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems.		
4.1	Recognize shapes and their relationships (for example, symmetry, congruence) using a variety of materials (for example, pasta boxes, pattern blocks).	54	38-1, 39-1, 39-2, 40-1
4.1a	Identify and give examples of congruency.	54	39-1
4.1b	Identify one line of symmetry for a given shape.		38-1
4.2	Identify, describe, draw, compare, classify and build physical models of geometric figures.	51-54	35-1, 36-1, 37-1, 39-2, 40-1
4.2a	identify, classify, and compare 2-dimensional shapes and use vocabulary to describe the attributes (for example, number of sides, vertices, angles, parallel sides)		39-2
4.2b	Identify parallel, and intersecting lines and right angles.	53	37-1
4.2c	Identify 2- and 3-dimensional figures; such as, trapezoids, parallelograms, rhombuses and other polygons.		39-2
4.2d	Recognize common attributes of squares and rectangles.		
4.3	Relate geometric ideas to measurement and number sense.	60-62	46-1, 46-2
4.3a	Solve for perimeter and area of rectangles and squares using a drawing on a grid.	60-62	46-1, 46-2
4.4	Solve problems using geometric relationships and spatial reasoning (for example, using rectangular coordinates to locate objects, constructing models of three-dimensional objects).		50-5
4.4a	Locate objects on a coordinate grid (1st quadrant only) and label ordered pairs.		50-5
5.	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.		
5.1	Know, use, describe, and estimate measures of length, perimeter, capacity, weight, time, and temperature.	55-61	41-1, 41-2, 42-1, 43-1, 44-1, 45-1, 46-1
5.1a	Tell time in hours and minutes, including a.m. and p.m. using both analog and digital displays.	55	41-1, 41-2

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5.1b	Choose the appropriate tool to measure familiar objects in situations that contain length, weight, capacity, time and temperature.	55-59	41-1, 41-2, 43-1, 44-1, 45-1, 46-1
5.2	Compare and order objects according to measurable attributes (for example, longest to shortest, lightest to heaviest).	57 (T.G.)	
5.2a	Compare objects according to measurable attributes of length, area, volume, capacity, weight and/or temperature in US customary and/or metric units.	57 (T.G.)	
5.3	Demonstrate the process of measuring and explain the concepts related to units of measurement.	57-59	43-1, 45-1
5.3a	Measure and determine perimeter of polygons to the nearest half inch or centimeter.	61	46-1
5.3b	Determine the areas of squares and rectangles on a grid.	62	46-2
5.4	Use the approximate measures of familiar objects (for example, the width of your finger, the temperature of a room, the weight of a gallon of milk) to develop a sense of measurement.	57 (T.G.)	
5.4a	Relate units of measurement of length, area, volume, capacity, weight and/or temperature in US customary and/or metric units to every day objects or situations (for example, yard to a stride, liter to a quart).	57 (T.G.), 59, 62	
5.5	Select and use appropriate standard and non-standard units of measurement in problem-solving situations.	58, 59	44-1, 45-1
5.5a	Choose appropriate units of measure for length, area, volume, capacity, weight, temperature, and/or time to solve problems.	56, 59, 62	46-1, 46-2
6.	Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.		
6.1	Demonstrate conceptual meanings for the four basic arithmetic operations of addition, subtraction, multiplication, and division.	11, 12, 17, 25, 37	14-1, 19-1, 20-1, 24-1, 29-1

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6.1a	Demonstrate the conceptual meaning (using pictures, words, diagrams, or numbers) of addition, subtraction, multiplication, and division of whole numbers.	11, 12, 25, 37	
6.2	Add and subtract commonly-used fractions and decimals using physical models (for example, $\frac{1}{3}$, $\frac{3}{4}$, 0.5, 0.75).	24, 49, 50	33-1, 33-2, 47-1
6.2a	Using pictures, demonstrate addition and subtraction of commonly used fractions with the same denominators where sums/differences are equal or less than a whole ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{10}$).	49, 50	33-1, 33-2
6.2b	Using money notation, add and subtract decimals in which sums and differences should not exceed \$100.00.	24	47-1
6.3	Demonstrate understanding of and proficiency with basic addition, subtraction, multiplication, and division facts without the use of a calculator.	12-14, 25-27, 37-39	Masters 8-11
6.3a	Demonstrate understanding of basic multiplication and division facts.	25-27, 37-39	20-2, 25-1
6.3b	Continue to demonstrate proficiency of basic addition and subtraction facts.	12-14, 17	11-1, 14-1, 19-1
6.3c	Use a multiplication facts table to locate all the factors for a particular product (for example, for a product of six: 1, 6, 2, and 3 are all factors).		20-3
6.4	Construct, use, and explain procedures to compute and estimate with whole numbers.	9, 10, 22	7-1,8-1
6.4a	Use reasonable estimation techniques before performing basic math operations (for example, front-end estimation, estimating by rounding, friendly numbers, compatible numbers, flexible rounding, clustering).	9, 10, 22, 34	
6.4b	Using paper and pencil, demonstrate the four basic operations of whole numbers including: addition; subtraction; multiplication of 2 or 3-digit numbers by a 1-digit number; division of 2-digit number by a 1-digit divisor.	13, 15, 16, 20, 30, 32, 42	10-1, 15-2, 16-1, 21-2, 26-1
6.5	Select and use appropriate methods for computing with whole numbers in problem-solving situations from among mental arithmetic, estimation, paper-and-pencil, calculator, and computer methods.	21, 23, 33, 34, 36, 44	49-2

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6.5a	Given a real-world problem solving situation, use an appropriate operation (any four basic math operation) and an appropriate method (paper-pencil, mental math, estimation, calculator, computer) to solve the problem.	21, 23, 33, 36, 44	49-2, 49-3
6.5b	Determine from a real-world problem whether an estimated or exact sum, difference, product, or quotient is acceptable.	34	